

REMARKS

This application contains claims 1-20, all of which were rejected in the present Official Action. Reconsideration is respectfully requested.

Claims 1-20 were rejected under 35 U.S.C. §103(a) over Kanekar et al. (US Patent No. 6,751,191) in view of Wang et al. (US Patent No. 6,834,326) Applicant respectfully traverses these rejections.

Kanekar describes methods for load sharing and redundancy in a network which reduce the switchover time upon failure of a router. The methods use a master router and a slave router; prior to failure of the master router it communicates shared state information to the slave router, which is operating in a standby mode. (Column 2 lines 13-24.)

Kanekar describes three layers of protocol, a physical layer, a layer 2, and a layer 3 level, that are used to route traffic. (Column 2 lines 39-40.) As described in detail by Kanekar, communications between a master router and a slave router are routed using the layer 2 and layer 3 level protocols. Kanekar describes how, at these levels, hardware and/or software switch the routing of packets between the master and the slave, which also maintain databases and/or routing tables at the layer 2 and at layer 3 levels. (Column 2 lines 25-38, and column 2 line 49 – column 4 line 17.) Typically, as also described in his disclosure, the routing is performed via virtual local area networks (VLANs) which are incorporated into the network. However, careful inspection of the whole of Kanekar's disclosure shows no reference whatsoever to change of physical layer protocol or layer 2 protocol, as traffic is routed through his network.

Wang describes a system for connecting disk drives to a controller via a network. The controller multicasts command packets to the disk drives, and is typically configured as an intelligent switch. Using multicasting allows the disk drives to be operated redundantly, in a RAID or other configuration, while being separated from the controller by the network. While readily agreeing that Wang's network, as stated by Wang, "may comprise ethernet, fibre channel or other physical layer protocols," (Abstract) applicant points out that Wang makes no reference at all to change of physical layer or layer 2 protocol as the multicast command packets are routed through his network.

Claim 1 in the present patent application recites a method for transferring information between a first network operating under an Ethernet protocol, and a second network operating under a Fibre Channel (FC) protocol. Stations in the first network are grouped into virtual local area networks (VLANs), and stations in the second network are grouped into FC zones. The two networks are coupled together by a gateway, which maps the VLANs to the zones, and which translates between data frames operative in the VLANs and those operative in the FC zones.

The mapping combines the VLANs with the zones, so that, as stated in paragraph 0010 of the specification, “A combination grouping is formed by associating a specific VLAN with a specific zone From the point of view of a VLAN station in the combination, all stations in the combination appear as native VLAN stations. From the point of view of an FC station within the combination, all stations appear as native FC zone stations.” The present invention thus provides a solution to the problem of transferring data between sections of networks operating mutually incompatible physical layer protocols and layer 2 protocols, as well as making the data transference transparent.

In rejecting claim 1, the Examiner stated (article 5): “Kanekar teaches ... a first network comprising first-network-stations operating under an Ethernet protocol and a second network comprising second-network-stations operating under a Fibre Channel (FC) protocol,” In the same article, the Examiner also stated: “But Kanekar does not explicitly teach a Fibre channel protocol.” These statements are plainly contradictory, and in fact the latter statement is correct. Kanekar does not teach a Fibre Channel protocol and at no point do two sections of his network operate under different physical protocols, nor under different layer 2 protocols. In support of his statements, the Examiner referenced Fig. 7 and Fig. 14, which applicant agrees show a VLAN1 and a VLAN2, as do other figures, such as Fig. 8. However, operating these VLANs under different physical protocols would render the network of Kanekar completely inoperative, as would operating them under different layer 2 protocols, since the incompatibility of the protocols requires exactly the type of solution provided by the present invention in order for the two systems, Ethernet and VLANs, and Fibre Channel and zones, to coexist.

Similarly, operating different sections of Wang’s network under different protocols would also render Wang’s network completely inoperative, because of the incompatibility of the

protocols; as for the network of Kanekar, the present invention solves the problem created by the incompatibility.

Thus, neither Kanekar nor Wang, taken together or separately, teach or suggest the combination of features of the present invention recited in claim 1, and which allow a network having sections operating different physical layer and layer 2 protocols to function.

Therefore, applicant respectfully submits that claim 1 is clearly patentable over Kanekar or Wang, taken together or separately. In view of the patentability of claim 1, claims 2-10, which depend from claim 1, are believed to be patentable, as well.

Claim 11 recites apparatus for transferring information between a first network operating under an Ethernet protocol and comprising first-network-stations grouped into one or more VLANs, and a second network operating under a Fibre Channel (FC) protocol, and comprising one or more second-network-stations grouped into one or more zones. The apparatus uses methods similar to those recited in claim 1. The Examiner rejected this claim on the same grounds as claim 1. Thus, for the reasons argued above with respect to claim 1, applicant respectfully submits that claim 11 is patentable over Kanekar or Wang, taken together or separately, as are dependent claims 12-20.

Notwithstanding the patentability of independent claims 1 and 11, applicant believes that the dependent claims in this application recite subject matter that is independently patentable. In the interest of brevity, however, the patentability of the dependent claims will not be argued here.

Applicant believes that the above remarks are fully responsive to all of the grounds of rejection raised by the examiner. In view of these remarks, applicant respectfully submits that all of the claims currently pending in the present application are in order for allowance. Notice to this effect is respectfully requested.

Conclusion

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Catherine M. Voisin (Reg. No.

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52,327) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required

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Respectfully submitted,

By 

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